

POWER SECTION

Model No: AT475783.8

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	178.00
Contour Length	172.25
Major Diameter	2.945
Eccentricity	0.163
Head diameter	2.750
Thread Form	2.375 HEF Modified
Weight	283 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	187.00
Tube OD	4.75
Tube ID	3.75
Rubber Cutback Top/End	8.00 / 8.00
Weight	397 lbs
Number of Stages	3.8
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.600	0.019	0.031	0.044	0.062	0.074
.5 OS	2.610	0.009	0.021	0.033	0.052	0.064
1.0 OS	2.620	-0.001	0.011	0.023	0.041	0.053
1.5 OS	2.631	-0.012	0.000	0.012	0.030	0.042
2.0 OS	2.651	-0.032	-0.020	-0.008	0.009	0.021
2.5 OS						

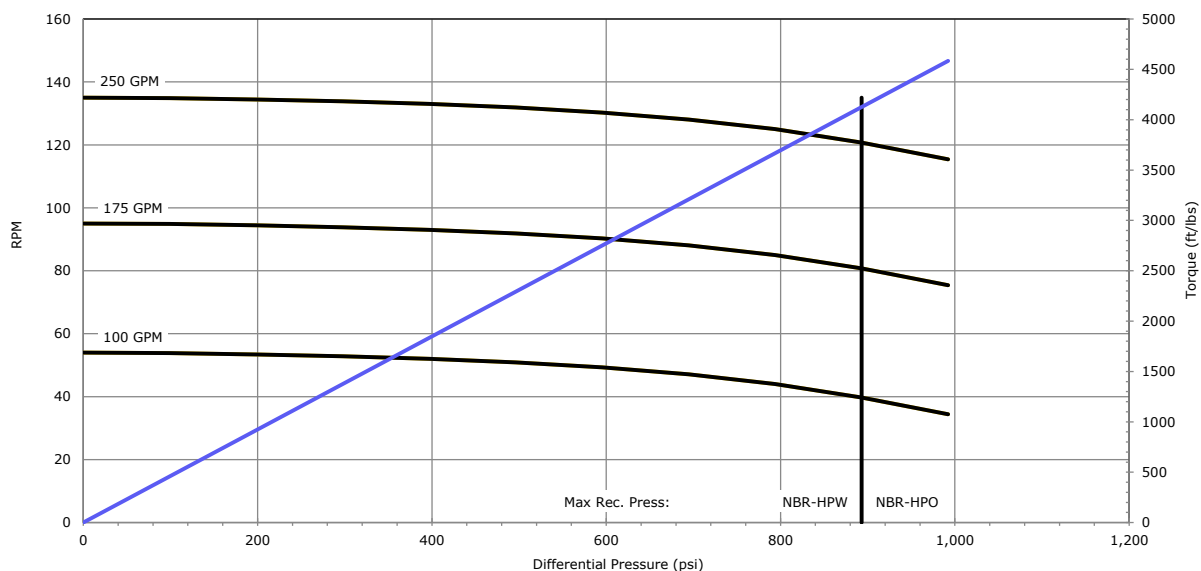
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.600	0.019	0.031	0.044	0.062	0.074
.5 OS	2.610	0.009	0.021	0.033	0.052	0.064
1.0 OS	2.620	-0.001	0.011	0.023	0.041	0.053
1.5 OS	2.631	-0.012	0.000	0.012	0.030	0.042
2.0 OS	2.651	-0.032	-0.020	-0.008	0.009	0.021
2.5 OS						

Performance Specifications	
Flow Range (gpm)	100 - 250
Speed Range (rpm)	50 - 140
Torque Slope (ft-lb/psi)	4.62
Rotation (rev/gal)	0.540
Off Bottom Pressure (psi)	50

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		900	900
Stall Diff Press (psi)		1410	1410
Max Torque (ft-lb)		4130	4130
Stall Torque (ft-lb)		6500	6500

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ BHCT Exceeding 320°F will void warranty for NBR-HPW/HPO.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit www.AbacoDrilling.com for the latest specification revisions.

LOCATIONS

US: Headquarters 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT475783.8

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	4521.2
Contour Length	4375.2
Major Diameter	74.80
Eccentricity	4.14
Head diameter	69.85
Thread Form	2.375 HEF Modified
Weight	128 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	4749.8
Tube OD	120.7
Tube ID	95.3
Rubber Cutback Top/End	203.0 / 203.0
Weight	180 kg
Number of Stages	3.8
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	66.04	0.48	1.05	1.33	1.61	1.89
.5 OS	66.29	0.23	0.79	1.07	1.34	1.62
1.0 OS	66.55	-0.03	0.53	0.80	1.08	1.36
1.5 OS	66.83	-0.30	0.24	0.52	0.79	1.06
2.0 OS	67.34	-0.81	-0.28	-0.01	0.26	0.53
2.5 OS						

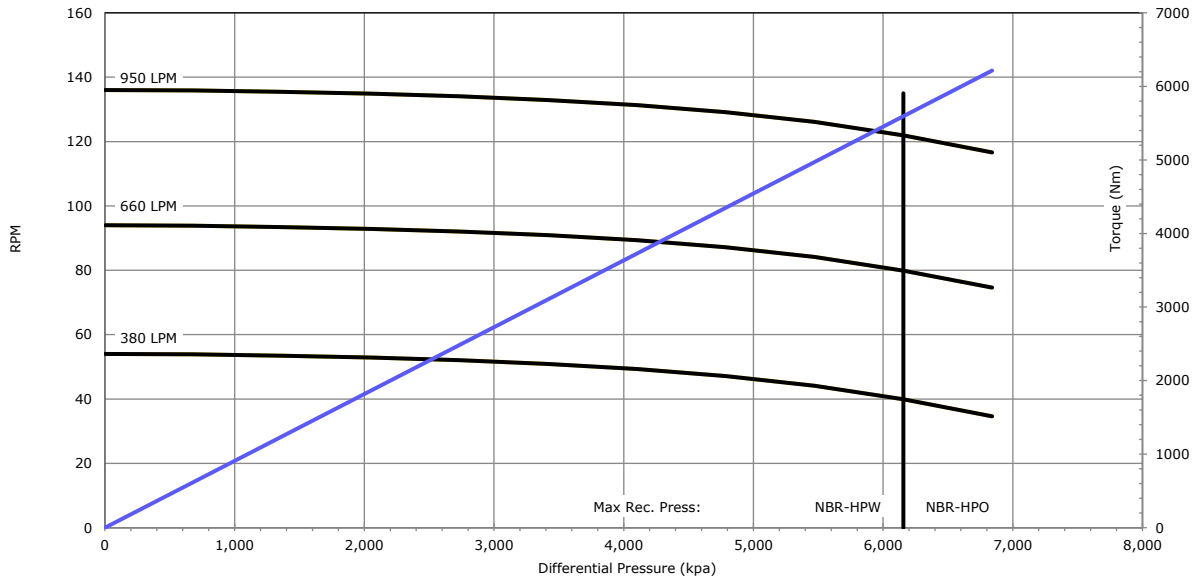
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	66.04	0.48	1.05	1.33	1.61	1.89
.5 OS	66.29	0.23	0.79	1.07	1.34	1.62
1.0 OS	66.55	-0.03	0.53	0.80	1.08	1.36
1.5 OS	66.83	-0.30	0.24	0.52	0.79	1.06
2.0 OS	67.34	-0.81	-0.28	-0.01	0.26	0.53
2.5 OS						

Performance Specifications	
Flow Range (lpm)	380 - 950
Speed Range (rpm)	50 - 140
Torque Slope (Nm/kpa)	0.91
Rotation (rev/Liter)	0.1427
Off Bottom Pressure (kpa)	340

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	6200	6200
Stall Diff Press (kpa)	9700	9700
Max Torque (Nm)	5600	5600
Stall Torque (Nm)	8900	8900

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C ³ BHCT Exceeding 160°C will void warranty for NBR-HPW/HPO.

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